

GLOBAL ECONOMICS SCOTIABANK COMMODITY PRICE INDEX

July 31, 2019

Global Oil Market Busy but Directionless, While Alberta Continues to Ease Curtailment

- The oil market is digesting a multitude of headline risks ranging from worsening trade wars to a potential blockade of the Strait of Hormuz, yet the price implications of these various risks are mixed and have left the oil market without a clear sense of direction.
- Oil's bearish pressures include a slower global economy that is taking the wind out of oil demand growth, the appearance that there is little prospect of near-term US-China trade tension resolution, and collapsing calendar spreads signalling looser spot markets.
- Oil's bullish support comes from US sanctions that continue to depress Iranian and Venezuelan production, a US shale patch that appears to be slowing as year-on-year rig counts turn negative, and mounting US-Iranian tension that threatens the mother of all tail risks in a potential blockade of the Strait of Hormuz.
- Unfortunately for those hoping for a definitive breakout, our base case sees the presently range-bound barrel continuing to trade around current levels of \$55/bbl (WTI) through the end of 2020.
- Alberta's provincial government announced another 25 kbpd easing of the curtailment programme in September, bringing the year-to-date easing to 225 kbpd versus an initial cut of 325 kbpd, but don't count on a fully uncurtailed western Canadian oil market until Line 3 enters service in late-2020.

COMPETING OIL MARKET DRIVERS KEEP CRUDE RANGE-BOUND

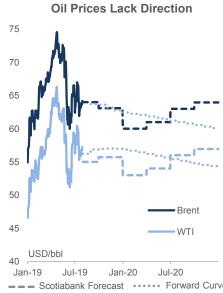
It's been a remarkably busy few months for the oil market between OPEC+ meetings, trade wars, and tanker attacks but you wouldn't know it by simply looking at the price of crude, which has meandered between \$50-60/bbl (WTI basis) for most of the year save one valiant but short-lived break toward \$65/bbl in April (chart 1). That's because while headline risks have been plentiful, they're price impacts are mixed and support both bullish and bearish theses, leaving plenty of buyers and sellers on either side of \$55/bbl.

Pulling all these developments together, we believe that the base case has weakened slightly since the beginning of the year due to slower economic activity and sluggish demand growth, through upside tail risks are tilted to the extreme. Downside risks could push crude into the \$40s/bbl from the current level of around \$55/bbl, while a worst case conclusion to current supply risks—namely a full-blown blockade of the Strait of Hormuz—could easily push oil prices back to \$100/bbl. With the market stuck in neutral, investors are waiting for a catalyst to break the current bout of range-trading. Unfortunately for those hoping for a definitive narrative, we don't expect the market to find firm direction anytime soon and WTI prices are forecast to trade roughly flat at \$55/bbl through the end of 2020.

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Chart 1



--- Scotiabank Forecast · · · · Forward Curve Sources: Scotiabank Economics, Bloomberg.

Scotiabank Commodity Price Index					
June 2019	(% change)				
	M/M	Y/Y	YTD		
All Commodity*	-2.2	-7.9	-4.6		
Industrials	-2.9	-8.7	-4.2		
Oil & Gas	-11.4	-14.3	-2.0		
Metal & Minerals	2.6	6.4	-0.4		
Forest Products	1.9	-21.8	-13.5		
Agriculture	1.4	-4.1	-6.9		
	January 2007 = 100				
	Janua	ry 2007	= 100		
	Janua	2019	= 100		
		•			
All Commodity		2019			
All Commodity	Jun	2019 May Y 114.6	TD avg.		
,	Jun 112.1 109.3	2019 May Y 114.6	TD avg. 115.7 113.6		
Industrials	Jun 112.1 109.3 81.7	2019 May Y 114.6 112.6	TD avg. 115.7 113.6 93.0		
Industrials Oil & Gas	Jun 112.1 109.3 81.7 131.0	2019 May Y 114.6 112.6 92.2	TD avg. 115.7 113.6 93.0 126.3		
Industrials Oil & Gas Metal & Minerals	Jun 112.1 109.3 81.7 131.0	2019 May Y 114.6 112.6 92.2 127.7 137.2	TD avg. 115.7 113.6 93.0 126.3 143.6		

^{(30.1%),} Forest Products (14.7%), Agriculture (15.3%); Full technical note on page 7.

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First, the bad news for oil prices. It looks like oil demand growth ground to a near-halt in the first quarter of 2019, advancing by a 8-year low of only 0.3 MMbpd y/y according to the International Energy Agency (chart 2). The IEA's demand growth expectations for 2019 as a whole have slipped by 0.3–0.4 MMbpd since the beginning of the year to 1.2 MMbpd as of the agency's July forecast. This tracks the recent move by the International Monetary Fund to downgrade its global GDP growth forecasts in both 2019 and 2020 as political risks and trade war concerns stroke uncertainty and take a toll a toll on investment intentions.

Slower demand is likely behind recently looser spot market conditions reflected in Brent crude's falling calendar spreads (chart 3), which better reflect global supply and demand conditions than WTI. Spot markets had been tight for most of the past year and prompt deliveries were trading at a premium to future shipments, but that premium began to erode in June as supply tightness eased, leaving the forward curve fairly flat over the next few months. Macro sentiment is unlikely to recover amidst intransigence between Washington and Beijing, which appear increasingly unlikely to resolve the dispute before the 2020 US presidential election—indeed, risks are tilted to the downside given the lack of a real path to face-saving de-escalation and further tariff targets at the ready.

Oil's bullish drivers are entirely on the supply side of the market and some have the potential to drive crude prices back toward \$100/bbl if low-probability worst case scenarios come to pass. Production in Venezuela and Iran has already been acutely disrupted by US sanctions and output has fallen by 2.2 MMbpd (42%) year-on-year as of June (chart 4). It continues to appear unlikely that either country will materially increase their production from currently depressed levels and production risks remain tipped to the downside. US shale growth also appears to be slowing, with the oil-directed rig count down 10% y/y and per-rig productivity plateauing. Shale producers have been rebuffed by a market that now demands profitability and shareholder returns rather than breakneck production growth, limiting the pace of the patch—US crude production growth slowed to around 1.5 MMbpd y/y in the second quarter of 2019 following growth of 2 MMbpd since last fall.

Finally, the reapplication of US sanctions against Iran were the first step in a series of tit-for-tat actions between both Washington and Tehran that has culminated in tanker attacks, the seizure of a British tanker, and mounting threats that Iran would blockade the Strait of Hormuz, through which roughly one-fifth for the world's crude supplies flow daily. While there is some capacity for regional shippers to circumvent a potential Iranian blockade in the Strait (most notably Saudi's 5 MMbpd East-West pipeline), any sustained closure would still result in an acute loss of deliverable supplies and prices would quickly rise. The deteriorated security environment in the Strait has resulted in skyrocketing issuance premiums, which have risen as much as 10-fold since the attacks have begun. While a closure of the Strait remains the definitive tail risk, even a 10–20% probability warrants serious consideration given the potential magnitude of a worst case outcome.

In sum, our base case continues to see slightly slower demand keeping crude prices anchored around \$55/bbl though risks are tipped to the upside with large potential swings from further US-Iran escalation. Sentiment is expected to track the development of key outstanding questions like whether the US shale patch can reaccelerate, the next step in US-Iranian relations, and the outcome of US-China trade negotiations over the coming year.

Chart 2



-0.5 MMbpd, y/y
'10 '12 '14 '16 '18 '20
Sources: Scotiabank Economics, IEA.

Chart 3

0.5

Softening Prompt Premiums Indicate Looser Spot Market Conditions

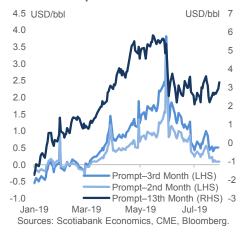


Chart 4

-2 0

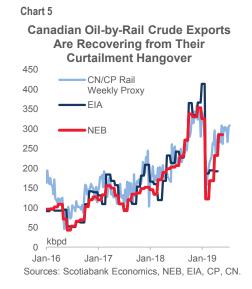
-2.5 MMbpd, y/y Jan-16 Sep-16 May-17 Jan-18 Sep-18 May-19 Sources: Scotiabank Economics, OPEC.



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ALBERTA EASES CURTAILMENT FURTHER IN SEPTEMBER

Alberta's provincial government announced another 25 kbpd increase in allowable oil production in September, the sixth consecutive monthly increase of that level following a larger increase in February and March. This latest curtailment directive brings Alberta's year-to-date easing to 225 kbpd against an initial cut of 325 kbpd. At the current pace of easing the initial cut will be reversed by year-end, which is when curtailment is scheduled to roll off, though we expect the province to continue managing incremental production additions into 2020. These production increases have gradually pressured the WCS differential wider, which has supported a recovery in oil-by-rail volumes, most recently to 285 kbpd in May (chart 5)—still a ways off the December record of 354 kbpd but up from the post curtailment low of 122 kbpd in February. However, the western Canadian oil patch is going to need still-more oil-byrail capacity—upwards of 500 kbpd by fourth guarter of 2020—in addition to continued low-grade curtailment through the balance of 2020 until Line 3 enters service to avoid another spike in WCS discounts. We expect that the differential will widen to around \$20/bbl through the third quarter of 2019 to incentivize and compensate necessary rail investments.

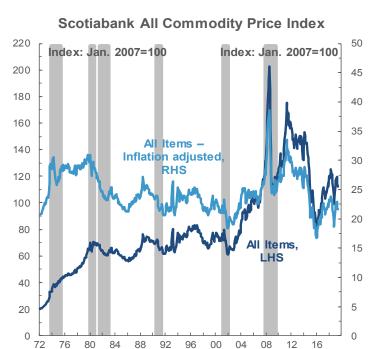




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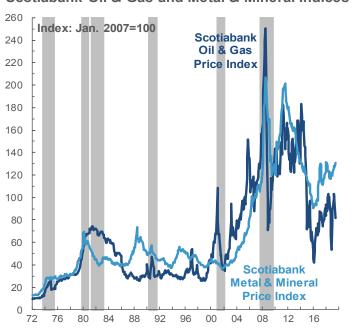
Price Outlook			2000–2017		2018	2019ytd	2019F	2020F
01100			Period			_		
Oil & Gas		Low	Avg.	High				
Crude Oils								
West Texas Intermediate	USD/bbl	17.45	62.05	145.29	64.90	57.45	56	55
North Sea Brent Blend	USD/bbl	17.68	64.93	146.08	71.69	65.88	65	62
WCS - WTI Discount*	USD/bbl	-42.50	-16.43	-5.50	-26.29	-11.71	-14	-21
Natural Gas								
Nymex Henry Hub	USD/MMBtu	1.64	4.83	15.38	3.07	2.64	2.71	2.75
Metals & Minerals								
Base Metals								
Copper	USD/lb	0.60	2.38	4.60	2.96	2.78	2.80	3.00
Nickel	USD/lb	2.00	7.12	24.58	5.95	5.66	5.70	6.00
Zinc	USD/lb	0.33	0.84	2.10	1.33	1.22	1.22	1.20
Aluminium	USD/lb	0.56	0.87	1.49	0.96	0.83	0.90	0.90
Bulk Commodities								
Iron Ore	USD/t	27	108	302	70	96	90	72
Metallurgical Coal	USD/t	39	131	330	208	201	195	170
Precious Metals								
Gold	USD/toz	256	890	1,895	1,268	1,322	1,350	1,350
* 2008-17 average.								



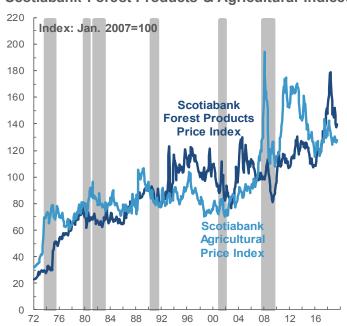




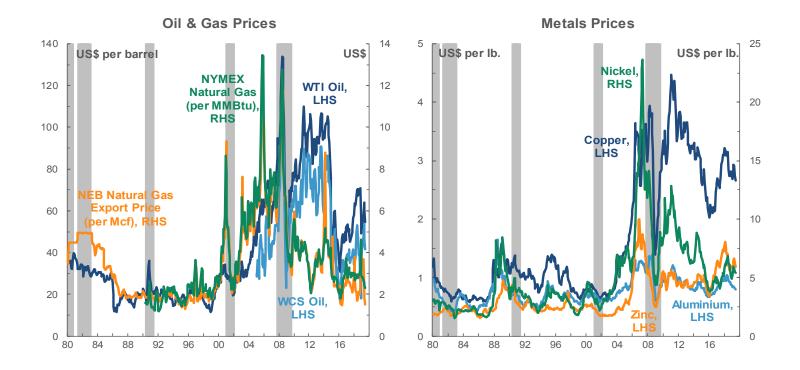
Scotiabank Oil & Gas and Metal & Mineral Indices

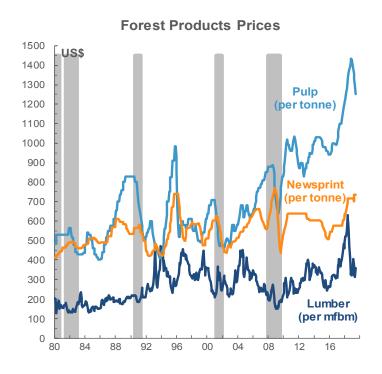


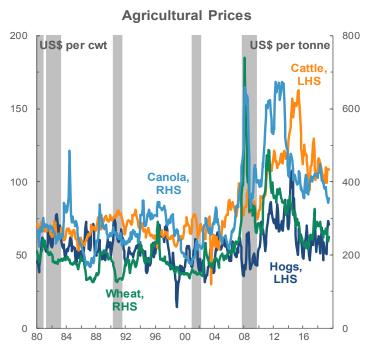
Scotiabank Forest Products & Agricultural Indices













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Technical Note Scotiabank Commodity Price Index — Principal Canadian Exports January 2007 = 100

This Index has been designed to track the spot or transactions prices paid in U.S. dollars for key Canadian commodities and resource-based manufactured goods in export markets. The weight of each component is based upon its net export value in 2010. Prior to January 2007, the weight of each component was based on its export value in 1995-97, except for crude oil & refined petroleum products, uncoated freesheet paper and linerboard, where net exports were used. Canada imports a significant quantity of these products, and use of their export value alone would have overstated the importance in Canada's trade performance.

The following prices are included:

OIL & GAS

Crude Oil & Refined Petroleum Products (US\$ per bbl) MSW light sweet crude oil at Edmonton (previously Edmonton Par crude) and Western Canadian Select heavy oil at Hardisty, Alberta; price differentials off WTI near-by futures from Bloomberg.

Natural Gas (US\$ per mcf) Average export price quoted by the National Energy Board.

Natural Gas Liquids (NGLs – Propane, Butane, Ethane & Pentanes-Plus) (US\$ per bbl), Propane at Edmonton & Sarnia.

METALS & MINERALS

Copper & Products (US\$ per Ib) LME official cash settlement price for grade A copper.

Zinc (US\$ per lb) LME SHG cash settlement: prior to Sept 1990, U.S. producers' price for high-grade zinc delivered.

Lead (US\$ per lb) LME official cash settlement price; prior to Jan. 1991, U.S. producers' price for common grade delivered.

Aluminium & Products (US\$ per lb) since 1979, LME official cash settlement price.

Nickel (US\$ per lb) since 1980, LME official cash settlement price.

Gold (US\$ per oz) 'LBMA Gold Price PM' as of March 20, 2015.

Potash (US\$ per tonne) Standard potassium chloride, spot price, FOB Vancouver.

Sulphur (US\$ per tonne) Solid, spot price, FOB Vancouver.

Metallurgical Coal (US\$ per tonne) Contract price for premium-grade hard coking coal, FOB Vancouver.

Iron Ore (US cents per dmtu) Spot price fines 62% Fe, CFR Qingdao, China; prior to Jan 2011, term-contract price for concentrates 66% Fe from Labrador/Quebec to Northern Europe (FOB Sept-Iles).

Uranium (US\$ per lb) U₃O₈ near-by-futures from Bloomberg.

Molybdenum (US\$ per lb) since March 1992, MW dealer oxide.

Cobalt (US\$ per lb) MW dealer price.

FOREST PRODUCTS

Lumber & Wood Products, Western Spruce-Pine-Fir 2x4 No.2 & Btr (US\$ per mfbm) FOB mill.

Oriented Strandboard (US\$ per thousand sq. ft.), U.S. North Central region, 7/16 inch.

Pulp, Bleached Northern Softwood Kraft (US\$ per tonne) Transactions price, delivery USA.

Newsprint (US\$ per tonne) Average transactions price, 45 grams, delivery

Groundwood Specialty Papers (US\$ per ton) Supercalendered-A paper, 35 lb., delivery USA.

Linerboard (US\$ per ton), delivery Eastern USA with zone discounts.

AGRICULTURE

Wheat & Flour (US\$ per tonne), DNS No 1 14% protein Duluth, Minn; prior to April 2011 No.1 CWRS, 13.5% protein at St. Lawrence.

Barley (US\$ per tonne), Saskatchewan aggregate spot price; historical data No. 1 at Lethbridge, Alberta.

Canola & Oilseeds (US\$ per tonne) No.1 Canada, in store Vancouver.

Cattle & Beef (US\$ per cwt) Steers over 1,051 pounds at Toronto; from Jan 1993, Ontario average.

Hogs & Pork (US\$ per cwt) 100 Index Hogs at Toronto; from Jan 1993, Ontario average.
Fish & Seafood (US\$ per lb) West Coast silver coho salmon; Atlantic lobster prices; prior to 1986 cod fillets & blocks.

Scotiabank Commodity Price Index — Components And Weights						
Index Components	Net Export Value In 2010 (millions of dollars)	Index Weight (per cent)				
OIL & GAS INDEX	46,537	39.90				
Crude Oil & Refined Products	33,231	28.49				
Natural Gas & LNG	11,741	10.07				
NGLs	1,565	1.34				
METAL & MINERAL INDEX	35,109	30.10				
Copper	3,160	2.71				
Zinc	1,255	1.08				
Lead	579	0.50				
Aluminium	6,045	5.18				
Nickel	4,246	3.64				
Gold	4,678	4.01				
Coal	4,757	4.08				
Iron Ore	3,346	2.87				
Potash	5,161	4.42				
Sulphur	457	0.39				
Uranium	891	0.76				
Cobalt	288	0.25				
Molybdenum	246	0.21				
FOREST PRODUCTS INDEX	17,081	14.66				
Lumber & Wood Products	4,673	4.01				
OSB	812	0.70				
Pulp	6,818	5.85				
Newsprint	2,734	2.34				
Groundwood Spec. Papers	1,971	1.69				
Linerboard	87	0.07				
AGRICULTURAL INDEX	17,901	15.35				
Wheat & Flour	4,693	4.02				
Barley & Feedgrains	1,088	0.93				
Canola & Oilseeds	5,398	4.63				
Cattle & Beef	1,640	1.41				
Hogs & Pork	2,378	2.04				
Fish & Seafood	2,704	2.32				
TOTAL INDEX	116,643	100.00				



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